

CLAIMS

I/We claim:

- [c1] 1. A liquid crystal display device, comprising:
two substrates, wherein one substrate has a multi-domain pattern for dividing pixels of said liquid crystal display device, the other substrate has a plurality of strip patterns, when said two substrates are fabricated and liquid crystals are injected into therein, said strip patterns and said multi-domain pattern dividing said pixels to form a multi-domain homeotropic alignment mode liquid crystal display device.
- [c2] 2. The device in claim 1, wherein said two substrate are glass substrates.
- [c3] 3. The device in claim 1, wherein said substrate having said plurality of strip patterns has a matrix composed of a plurality of transistors.
- [c4] 4. The device in claim 3, further comprises a plurality of pixel electrodes by the side of said plurality of transistors respectively connects electrically with drains of said transistors.
- [c5] 5. The device in claim 4, wherein said strip patterns are formed on said pixel electrodes.
- [c6] 6. The device in claim 5, wherein said pixel electrodes are transparent.
- [c7] 7. The device in claim 6, wherein structures of said strip patterns are slits.

- [c8] 8. The device in claim 3, wherein said substrate having said multi-domain pattern has a common electrode layer.
- [c9] 9. The device in claim 8, wherein said multi-domain pattern is composed of a frame pattern and a pixel-dividing pattern.
- [c10] 10. The device in claim 9, wherein said pixel-dividing pattern is selected from the group consisting of +, H, ++, and #.
- [c11] 11. The device in claim 9, wherein said pixel-dividing pattern and said frame pattern are overlapped with each other.
- [c12] 12. The device in claim 1, wherein said substrate having said multi-domain pattern has a matrix composed of a plurality of transistors.
- [c13] 13. The device in claim 12, further comprises a plurality of pixel electrodes by the side of said plurality of transistors respectively connects electrically with drains of said transistors.
- [c14] 14. The device in claim 13, wherein said multi-domain pattern is formed on said pixel electrodes.
- [c15] 15. The device in claim 13, wherein said pixel electrodes are transparent.
- [c16] 16. The device in claim 14, wherein said multi-domain pattern is composed of a frame pattern and a pixel-dividing pattern.
- [c17] 17. The device in claim 16, wherein said contact pattern is selected from the group consisting of +, H, ++, and #.

- [c18] 18. The device in claim 16, wherein said pixel-dividing pattern and said frame pattern are overlapped with each other.
- [c19] 19. The device in claim 13, wherein said substrate having said plurality of strip patterns has a common electrode layer.
- [c20] 20. The device in claim 19, wherein structures of said strip patterns are slits.
- [c21] 21. The device in claim 2, wherein each of said plurality of strip patterns divides domains of said multi-domain pattern into equal parts.
- [c22] 22. The device in claim 2, wherein each domain of said multi-domain pattern is square.
- [c23] 23. The device in claim 22, wherein each of said plurality of strip patterns is parallel to one side of said square domain.
- [c24] 24. The device in claim 23, wherein said side of said square domain is the long side.
- [c25] 25. A liquid crystal display device, comprising:
 a first substrate having a plurality of transistors on a first surface of said first substrate;
 a second substrate having a common electrode layer on a first surface of said second substrate;
 two polarizers, one of said two polarizers being attached to a second surface of said first substrate, the other polarizer being attached to a second surface of said second substrate; and

a multi-domain pattern formed on one of said first substrate and said second substrate dividing pixels complementary to said plurality of transistors into more than two domains, a plurality of strip patterns formed on the other one of said first substrate and said second substrate, when said first substrate and said second substrate are fabricated and liquid crystals are injected into therein, said strip patterns and said multi-domain pattern dividing said pixels to form a multi-domain homeotropic alignment mode liquid crystal display device.

[c26] 26. The device in claim 25, further comprises at least a compensation film attached to said second substrate and is between said second substrate and said polarizer of said second substrate.

[c27] 27. The device in claim 25, wherein said multi-domain pattern is composed of a frame pattern and a contact pattern.

[c28] 28. The device in claim 27, wherein said contact pattern is selected from the group consisting of +, H, ++, and #.

[c29] 29. The device in claim 25, wherein structures of said strip patterns are slits.